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NAVY ENLISTED OCCUPATIONAL STANDARDS

FOR

CRYPTOLOGIC TECHNICIAN (NETWORKS) (CTN)



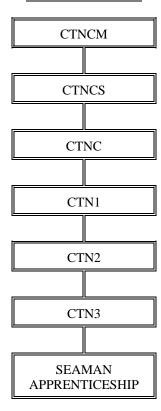
SCOPE OF RATING

<u>Cryptologic Technicians (Networks) (CTN)</u> monitor, identify, collect and analyze information; provide data for digital network products; and conduct computer network operations worldwide to support Navy and Department of Defense national and theater level missions. Duties include, but are not limited to, network target development; Indications and Warning (I&W); Attack Sensing and Warning (AS&W); network, software and forensic analysis; and Computer Network Defense (CND) operations.

These Occupational Standards are to be incorporated in Volume I, Part B, of the Manual of Navy Enlisted Manpower and Personnel Classifications and Occupational Standards (NAVPERS 18068F) as Chapter 20.

GENERAL INFORMATION

CAREER PATTERN



Normal path of advancement to Chief Warrant Officer and Limited Duty Officer categories can be found in OPNAVINST 1420.1.

SPECIAL REQUIREMENTS

Normal hearing required. Former members of the Peace Corps are not eligible.

CITIZENSHIP/SECURITY REQUIREMENTS

Must be a U.S. citizen and eligible for access to special intelligence information.

PERFORMANCE TESTS

None.

SAFETY

The observance of proper safety precautions in all areas is an integral part of each billet and the responsibility of every Sailor; therefore, it is a universal requirement for all ratings.

Job Title Global Network Operations Technician

Job Code 003006

<u>Job Family</u> <u>NOC</u> <u>Short Title (30 Characters)</u> <u>Short Title (10 Characters)</u>

Computer and Mathematical 1500-1071.01 GLOBAL NETWORK OPS TECHNICIAN GNT OP TEC

<u>Pay Plan</u> <u>Career Field</u> <u>Proficiency Level</u> <u>Other Relationships and Rules:</u>

Enlisted CTN A Not applicable, based upon the NEC assigned to the job (if any).

Job Description

Global Network Operations Technicians monitor, collect, and report information and conduct actions in direct support of computer network operations worldwide in support of Navy, National Security Agency, and Department of Defense national and theater level missions. Duties include network target development, Indications and Warning (I&W), Attack Sensing and Warning (AS&W), software analysis, Defensive Information Operations (DIO), and blue and red team functions.

DoD Relationship O*NET Relationship

Title and Group:Code and Area:Title and SOC Code:Name and Family Code:Analysis123200Computer Security SpecialistsComputer and Mathematical1231215-1071.0115

ALL SOURCE RESEARCHING

Paygrade	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>
E4	CORE	Coordinate creation of initi	ial database searches (database queries)	
			Coordination	Information Ordering
			Management of Personnel Resources	Inductive Reasoning
E4	CORE	Gather target information		
			Critical Thinking	Inductive Reasoning
			Systems Evaluation	Information Ordering
E4	CORE	Perform data mining		
			Complex Problem Solving Critical Thinking	Inductive Reasoning Information Ordering

COLLECTION PROCESSES

<u>Paygrade</u>	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>
E4	CORE	Identify CTN mission syst	ems	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify global collection	processes	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify Service Cryptolog	gic Element (SCE) functions	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering

COMMUNICATIONS PROTOCOLS

<u>Paygrade</u> E4	<u>Task Type</u> CORE	<u>Task Statements</u> Identify Institute of Electr	Skills ical and Electronic Engineers (IEEE) wire	Abilities d networking protocols
		·	Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify Institute of Electr	ical and Electronic Engineers (IEEE) wire Critical Thinking	less networking protocols Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify routing protocols		
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering

COMPUTER ARCHITECTURE

		COMICI	ER ARCHITECTURE		
<u>Paygrade</u> E4	<u>Task Type</u> CORE	<u>Task Statements</u> Identify Automated Inform	Skills nation System (AIS) component functions	<u>Abilities</u>	
		•	Critical Thinking	Inductive Reasoning	
			Operations Analysis	Information Ordering	
E4	CORE	Identify Input/Output (I/O)	device functions Critical Thinking Operations Analysis	Inductive Reasoning Information Ordering	
	COMPUTER NETWORK DEFENSE (CND) ANALYSIS				
<u>Paygrade</u> E4	Task Type CORE	Task Statements Identify hacker tactics, tech	Skills nniques, and procedures using forensic tec	-	
			Critical Thinking	Inductive Reasoning	
			Operations Analysis	Information Ordering	
		FILE SY	STEM INTERNALS		
<u>Paygrade</u> E4	Task Type CORE	Task Statements Identify common file struct	<u>Skills</u> tures	<u>Abilities</u>	
E.	CORE	racinity common the stract	Critical Thinking	Inductive Reasoning	
			Operations Analysis	Information Ordering	
E4	CORE	Identify disk partitions			
			Critical Thinking	Inductive Reasoning	
			Operations Analysis	Information Ordering	
E4	CORE	Identify file permissions	Cuiti and Thinking	Industina Daganina	
			Critical Thinking Operations Analysis	Inductive Reasoning Information Ordering	
E4	CORE	Identify file system formats	•	Information Ordering	
LŦ	CORL	identity the system format.	Critical Thinking	Inductive Reasoning	
			Operations Analysis	Information Ordering	
E4	CORE	Identify file system hierarc	hies		
			Critical Thinking	Inductive Reasoning	
			Operations Analysis	Information Ordering	
E4	CORE	Identify file system implen	nentations Critical Thinking	Inductive Reasoning	
			Operations Analysis	Information Ordering	
E4	CORE	Identify file system manage	ement Critical Thinking	Inductive Reasoning	
			Operations Analysis	Information Ordering	
E4	CORE	Identify master boot record			
		,	Critical Thinking	Inductive Reasoning	
			Operations Analysis	Information Ordering	
		NETW	ORK ANALYSIS		
Paygrade	Task Type	Task Statements	Skills	<u>Abilities</u>	
E4	CORE	Identify malicious activitie		Inductive Reasoning	
			Operations Analysis	Information Ordering	
E4	CORE	Perform network traffic and	•	Ingormation Ordering	
۵.	JOIL	2 STOTH HOLWOIR GUITE dile	Critical Thinking	Information Ordering	
			Operations Analysis	Inductive Reasoning	
E4	CORE	Perform session recoveries	from Internet Protocol (IP) data streams Complex Problem Solving	Information Ordering	
			Operations Analysis	Inductive Reasoning	

NETWORK SECURITY

Task Type	Task Statements	<u>Skills</u>	Abilities
CORE	Develop global Intrusion I	•	Information Ordering
		c c	,
		Systems Evaluation	Inductive Reasoning
CORE	Identify Access Control Li	ists (ACL)	
		Critical Thinking	Inductive Reasoning
		Operations Analysis	Information Ordering
CORE	Identify encryption standa	rds	
		Critical Thinking	Inductive Reasoning
		Operations Analysis	Information Ordering
CORE	Identify network security a	architecture components	
		Critical Thinking	Inductive Reasoning
		Operations Analysis	Information Ordering
CORE	Identify Virtual Private Ne	etworks (VPN)	
		Critical Thinking	Inductive Reasoning
		Operations Analysis	Information Ordering
	CORE CORE CORE	CORE Develop global Intrusion I CORE Identify Access Control L CORE Identify encryption standa CORE Identify network security a	CORE Develop global Intrusion Detection Systems (IDS) signatures Programming Systems Evaluation CORE Identify Access Control Lists (ACL) Critical Thinking Operations Analysis CORE Identify encryption standards Critical Thinking Operations Analysis CORE Identify network security architecture components Critical Thinking Operations Analysis CORE Identify Virtual Private Networks (VPN) Critical Thinking

OPERATING SYSTEM (OS) FUNDAMENTALS

Paygrade	Task Type	Task Statements	Skills	Abilities
E4	CORE		essing Unit (CPU) performance	120 ************************************
		,	Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E4	CORE	Analyze disk managemen	nt	
			Critical Thinking	Information Ordering
			Systems Analysis	Inductive Reasoning
E4	CORE	Analyze kernel functions	3	
			Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E4	CORE	Analyze kernel space me		
			Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E4	CORE	Analyze memory allocat		
			Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E4	CORE	Analyze Operating Syste	em (OS) hardware interactions	
			Critical Thinking	Inductive Reasoning
E4	CORE	A 1 d 1	Systems Analysis	Information Ordering
E4	CORE	Analyze thread managen	nent Critical Thinking	Inductive Reasoning
			· ·	· ·
E.4	CODE	D	Systems Analysis	Information Ordering
E4	CORE	Determine Operating Sys	stem (OS) implementations Critical Thinking	Inductive Reasoning
			Systems Evaluation	
F.4	CODE	T1 46	ř	Information Ordering
E4	CORE	Identify common system	Services Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
F.4	CODE	T1 - 10 O - 11 O - 1	*	Injormation Ordering
E4	CORE	Identify Operating System	m (OS) characteristics Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Map process life cycles	Operations Analysis	injormation Ordering
E /+	CORE	map process me cycles	Critical Thinking	Inductive Reasoning
			Programming	Information Ordering
			1 1081 41111111118	injornation ordering

PRODUCT DEVELOPMENT

Paygrade	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>
E4	CORE	Provide inputs for Signal I	Intelligence (SIGINT) reports	
			Reading Comprehension	Information Ordering
			Writing	Written Expression

PROGRAMMING

<u>Paygrade</u> E4	<u>Task Type</u> CORE	<u>Task Statements</u> Interpret basic level source	<u>Skills</u> e code	<u>Abilities</u>
2.	COLL	interpret outsie ie ver source	Complex Problem Solving	Information Ordering
			Programming	Inductive Reasoning
E4	CORE	Program basic-level comp	oiled language Critical Thinking	Information Ordering
			Programming	Inductive Reasoning
E4	CORE	Script basic-level interpret	ted language Critical Thinking	Information Ordering
			Programming	Originality

SENSITIVE COMPARTMENTED INFORMATION (SCI) PROTECTION

<u>Paygrade</u> E4	<u>Task Type</u> CORE	<u>Task Statements</u> Control access to restricte	<u>Skills</u> d areas	<u>Abilities</u>
			Monitoring	Inductive Reasoning
			Persuasion	Information Ordering
E4	CORE	Destroy classified materia	ls	
			Reading Comprehension	Inductive Reasoning
			Time Management	Information Ordering
E4	CORE	Document receipt of class	ified materials Management of Material Resources	Information Ordering
			Writing	Written Expression
E4	CORE	Implement Emergency Ac	ction Plan (EAP) Operation and Control	Inductive Reasoning
			Persuasion	Information Ordering
E4	CORE	Implement physical securi	ity measures	
			Operation and Control	Inductive Reasoning
			Persuasion	Information Ordering
E4	CORE	Inventory classified mater		
			Reading Comprehension	Inductive Reasoning
			Writing	Information Ordering
E4	CORE	Issue classified materials	Manager of Market I Parager	O1 C1
			Management of Material Resources	Oral Comprehension
E4	CODE	361.1	Quality Control Analysis	Information Ordering
E4	CORE	Maintain custody of classi	Management of Material Resources	Written Comprehension
			Quality Control Analysis	Information Ordering
E4	CORE	Maintain Sensitive Compa	artmented Information Facilities (SCIF) ac Operation Monitoring	cess control Deductive Reasoning
			Quality Control Analysis	Information Ordering
E4	CORE	Safeguard classified mater	rials	
			Judgment and Decision Making	Information Ordering
			Quality Control Analysis	Written Comprehension
E4	CORE	Store classified materials		
			Judgment and Decision Making	Information Ordering
			Management of Material Resources	Written Comprehension

E4	CORE	Update classified materials		
			Judgment and Decision Making	Information Ordering
			Management of Material Resources	Written Comprehension

SERVICE PROTOCOLS

Paygrade	Task Type	Task Statements	<u>Skills</u>	Abilities
E4	CORE	Identify application layer	•	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify data link layer pro	otocols (layer 2)	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify network layer pro	tocols (layer 3)	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify presentation layer	protocols (layer 6)	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify session layer prot	ocols (layer 5)	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify transport layer pro	otocols (layer 4)	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering

TARGET DEVELOPMENT

<u>Pavgrade</u> E4	<u>Task Type</u> CORE	Task Statements Analyze metadata	Skills	<u>Abilities</u>
			Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E4	CORE	Create dictionary terms		
			Critical Thinking	Inductive Reasoning
			Judgment and Decision Making	Information Ordering
E4	CORE	Develop target templates		
			Critical Thinking	Inductive Reasoning
			Reading Comprehension	Information Ordering
E4	CORE	Identify composition of re-	mote target networks	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Reconstruct target network	ks	
			Complex Problem Solving	Inductive Reasoning
			Systems Evaluation	Information Ordering

TRANSFER CONTROL PROTOCOL/INTERNET PROTOCOL (TCP/IP) FUNDAMENTALS

Paygrade	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>
E4	CORE	Analyze packet headers		
			Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E4	CORE	Describe addressing scher	nes	
			Complex Problem Solving	Information Ordering
			Mathematics	Inductive Reasoning

VULNERABILITY ANALYSIS

Paygrade	Task Type	<u>Task Statements</u> <u>Skills</u>	<u>Abilities</u>
E4	CORE	Perform vulnerability assessments on target networ	ks
		Critical Thinking	Information Ordering
		Systems Evaluation	Inductive Reasoning

Job Title **Global Network Operations Manager**

Job Code 003303

Short Title (10 Characters) Job Family Short Title (30 Characters)

1500-1071.00 Computer and Mathematical GLOBAL NETWORK OPS MANAGER GNT OP MAN

Pay Plan Career Field **Proficiency Level** Other Relationships and Rules:

Not applicable, based upon the NEC assigned to the job (if any). Enlisted CTN

Job Description

E4

Global Network Operations Managers provide first-level management of the monitoring, collection, and reporting of information and the conduct actions in direct support of computer network operations worldwide in support of Navy, National Security Agency, and Department of Defense national and theater level missions. Duties include network target development, software analysis and development, access/attack operations, Indications and Warning (I&W), Attack Sensing and Warning (AS&W), Defensive Information Operations (DIO), and blue and red team functions.

DoD Relationship O*NET Relationship

Title and Group: Code and Area: Title and SOC Code: Name and Family Code: 123200 Network and Computer Systems Computer and Mathematical Analysis

Administrators

123 12 15-1071.00 15

ALL SOURCE RESEARCHING

Abilities Paygrade Task Type **Task Statements** Skills

F4 CORE Perform data mining

Complex Problem Solving Inductive Reasoning Critical Thinking Information Ordering

COLLECTION PROCESSES

<u>Skills</u> **Abilities Paygrade** Task Type **Task Statements** E4 CORE Identify CTN mission systems Critical Thinking

Inductive Reasoning Operations Analysis Information Ordering

Identify Service Cryptologic Element (SCE) functions E4 CORE

> Critical Thinking Inductive Reasoning Operations Analysis Information Ordering

COMMUNICATIONS PROTOCOLS

Paygrade Task Type **Task Statements** Skills **Abilities** E4 CORE Identify Institute of Electrical and Electronics Engineers (IEEE) wired networking protocols Critical Thinking Inductive Reasoning

Operations Analysis Information Ordering

CORE Identify Institute of Electrical and Electronics Engineers (IEEE) wireless networking protocols Critical Thinking Inductive Reasoning

Information Ordering Operations Analysis

E4 **CORE** Identify routing protocols

Inductive Reasoning Critical Thinking Operations Analysis Information Ordering

COMPUTER ARCHITECTURE

Task Type **Task Statements** Abilities **Paygrade** <u>Skills</u> E4

Identify Automated Information System (AIS) component functions **CORE**

Critical Thinking Inductive Reasoning Operations Analysis Information Ordering

COMPUTER NETWORK DEFENSE (CND) ANALYSIS

Paygrade	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>
E5	CORE	Analyze global threat acti	vities from data collected during network i	
			Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Analyze incidents for inte	2	
			Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Analyze obfuscated source	e codes	
			Programming	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Assess Computer Network	k Defense (CND) postures for customers	
			Critical Thinking	Inductive Reasoning
			Systems Evaluation	Information Ordering
E5	CORE	Develop passive countern	neasures for Computer Network Operation	s (CNO) threats
			Operation Monitoring	Information Ordering
			Operations Analysis	Inductive Reasoning
E4	CORE	Identify hacker tactics, ted	chniques, and procedures using forensic tec	chniques
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E5	CORE	Perform penetration testin	ig against remote systems	
			Complex Problem Solving	Information Ordering
			Operations Analysis	Inductive Reasoning
E5	CORE	Validate network intrusion	n incidents	
			Complex Problem Solving	Information Ordering
			Quality Control Analysis	Inductive Reasoning

COMPUTER NETWORK OPERATIONS

Paygrade	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>
E5	CORE	Access remote systems	Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Analyze remote system er	vironments Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Analyze remote targets for	r software pre-positioning	
			Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E6	CORE	Assess technical impact of	f tools and techniques on a specific target Critical Thinking	Inductive Reasoning
			Systems Evaluation	Information Ordering
E6	CORE	Disrupt remote network in	ofrastructures Critical Thinking Systems Analysis	Information Ordering Inductive Reasoning

FILE SYSTEM INTERNALS

Paygrade	<u>Task Type</u> CORE	Task Statements	Skills	<u>Abilities</u>
E4	CORE	Identify common file stru	ctures	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify disk partitions		
		• •	Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering

E4	CORE	Identify file permission	ons	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify file system for	ormats	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify file system hi	erarchies	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify file system in	nplementations	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify file system m	anagement	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify master boot re	ecords	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering

FORENSIC ANALYSIS

Paygrade E5	<u>Task Type</u> CORE	Task Statements Analyze file system timeling	<u>Skills</u> nes	<u>Abilities</u>
20	COLL	1 mary 20 me system amen	Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Analyze hacker tactics, tec	chniques, and procedures using forensic tec	chniques
			Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E6	CORE	Analyze network vulnerab		
			Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Analyze un-obfuscated sou	arce codes in interpreted languages Programming	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Create system images	•	· ·
			Operation and Control	Inductive Reasoning
			Systems Evaluation	Information Ordering
E5	CORE	Identify active connections	S	
		•	Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E5	CORE	Identify hidden connection	ns	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E5	CORE	Identify hidden processes		
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E5	CORE	Perform binary analyses		
			Mathematics	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Perform forensic file syste	•	
			Complex Problem Solving	Information Ordering
			Systems Analysis	Inductive Reasoning

INFORMATION OPERATIONS (IO) PLANNING

Paygrade	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>
E7	CORE	Assess strategic impacts of	of tools and techniques on specific targets Critical Thinking	Inductive Reasoning
			Systems Evaluation	Information Ordering
E6	CORE	Coordinate Computer Net	twork Operations (CNO) with Information Coordination	Operations (IO) partners Information Ordering
			Management of Personnel Resources	Inductive Reasoning
E7	CORE	Coordinate deployments t	to support Computer Network Operations (Coordination	CNO) operations and exercises Information Ordering
			Management of Personnel Resources	Inductive Reasoning
E7	CORE	Develop Computer Netwo	ork Operation (CNO) portions of Informati Management of Material Resources	on Operations (IO) campaign plans Information Ordering
			Management of Personnel Resources	Inductive Reasoning
E6	CORE	Develop mission procedu	res	
			Complex Problem Solving	Information Ordering
			Critical Thinking	Inductive Reasoning
E6	CORE	Draft scenarios to support	current real world threat information Complex Problem Solving	Information Ordering
			Writing	Inductive Reasoning
E7	CORE	Draft schedule of events f	For operations	-
			Time Management	Information Ordering
			Writing	Written Expression
E7	CORE	Identify Rules Of Engage	ment (ROE) for Information Operations (In Critical Thinking	O) planning Inductive Reasoning
			Operations Analysis	Information Ordering

MISSION COORDINATION

<u>Paygrade</u>	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>
E5	CORE	Coordinate collections of	potential threats posed by target networks	
			Coordination	Information Ordering
			Management of Personnel Resources	Inductive Reasoning
E6	CORE	Deconflict legal processes		
			Complex Problem Solving	Information Ordering
			Coordination	Inductive Reasoning
E5	CORE	Deconflict network operat	ions	
			Coordination	Inductive Reasoning
			Critical Thinking	Information Ordering

NETWORK ANALYSIS

<u>Paygrade</u> E5	<u>Task Type</u> CORE	Task Statements Analyze malicious activit	Skills ies in global network traffic	<u>Abilities</u>
		,	Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Analyze network activitie	es for traffic characteristics Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E4	CORE	Identify malicious activiti	es in global network traffic Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering

NETWORK SECURITY

<u>Paygrade</u> E5	Task Type CORE	<u>Task Statements</u> Analyze Access Control L	<u>Skills</u> .ists (ACL)	<u>Abilities</u>
		•	Complex Problem Solving	Mathematical Reasoning
			Systems Analysis	Inductive Reasoning
E5	CORE	Analyze device logs	Critical Thinking	Information Ordering
			Systems Analysis	Inductive Reasoning
E4	CORE	Identify encryption standa	•	The weet of the way in the
		7 71	Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E5	CORE	Identify Institute of Electr	ical and Electronics Engineers (IEEE) sect Critical Thinking	ority standards Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify network security	architecture components Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify Virtual Private No	etworks (VPN) Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E5	CORE	Maintain global network I	ntrusion Detection Systems (IDS) signatur Management of Material Resources	es Inductive Reasoning
			Quality Control Analysis	Information Ordering
		OPERATING SYS	STEM (OS) FUNDAMENTALS	
<u>Paygrade</u>	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>
E4	CORE	Determine Operating Syst	em (OS) implementations Critical Thinking	Inductive Reasoning
			Systems Evaluation	Information Ordering
E4	CORE	Identify common system s	services Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify Operating System	n (OS) characteristics Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Map process life cycles	Critical Thinking	Inductive Reasoning
			Programming	Information Ordering
		PRODU	CT DEVELOPMENT	
<u>Paygrade</u> E4	<u>Task Type</u> CORE	<u>Task Statements</u> Provide inputs for Signal 1	Skills Intelligence (SIGINT) reports	<u>Abilities</u>
			Reading Comprehension	Information Ordering
			Writing	Written Expression
E6	CORE	Validate Computer Netwo	ork Operations (CNO) analysis products Critical Thinking	Information Ordering
			Quality Control Analysis	Inductive Reasoning
		PR	OGRAMMING	
<u>Paygrade</u> E6	<u>Task Type</u> CORE	Task Statements Develop Computer Netwo	Skills ork Operations (CNO) tools	<u>Abilities</u>
		i r	Programming	Inductive Reasoning
			Systems Analysis	Information Ordering

E5	CORE	Evaluate Computer Netwo	ork Operations (CNO) software tools Operations Analysis	Information Ordering
			Systems Evaluation	Inductive Reasoning
E5	CORE	Interpret assembly code		
			Complex Problem Solving	Information Ordering
			Programming	Inductive Reasoning
E4	CORE	Interpret basic level source	e code	
			Complex Problem Solving	Information Ordering
			Programming	Inductive Reasoning
E5	CORE	Interpret intermediate leve	el source code	
			Complex Problem Solving	Information Ordering
			Programming	Inductive Reasoning
E5	CORE	Maintain Computer Netwo	ork Operations (CNO) tools	
			Management of Material Resources	Inductive Reasoning
			Quality Control Analysis	Information Ordering
E4	CORE	Program basic level comp	2 2	
			Critical Thinking	Information Ordering
			Programming	Inductive Reasoning
E5	CORE	Program intermediate leve	1 0 0	
			Critical Thinking	Information Ordering
			Programming	Inductive Reasoning
E4	CORE	Script basic level interpret	ted language	
			Critical Thinking	Information Ordering
			Programming	Originality
E5	CORE	Script intermediate level is	nterpreted language	
			Critical Thinking	Information Ordering
			Programming	Originality

SENSITIVE COMPARTMENTED INFORMATION (SCI) PROTECTION

Paygrade	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>
E4	CORE	Control access to restricte	ed areas	
			Monitoring	Inductive Reasoning
			Persuasion	Information Ordering
E4	CORE	Destroy classified materia	als	
			Reading Comprehension	Inductive Reasoning
			Time Management	Information Ordering
E4	CORE	Document receipt of class	sified materials	
			Management of Material Resources	Information Ordering
			Writing	Written Expression
E4	CORE	Implement Emergency A	ction Plan (EAP)	
			Operation and Control	Inductive Reasoning
			Persuasion	Information Ordering
E4	CORE	Implement physical secur	rity measures	
			Operation and Control	Inductive Reasoning
			Persuasion	Information Ordering
E4	CORE	Maintain custody of class	sified materials	
		•	Management of Material Resources	Written Comprehension
			Quality Control Analysis	Information Ordering
E4	CORE	Maintain Sensitive Comp	artmented Information Facilities (SCIF) ad	ccess control
			Operation Monitoring	Deductive Reasoning
			Quality Control Analysis	Information Ordering
E4	CORE	Safeguard classified mate	erials	
		-	Judgment and Decision Making	Information Ordering
			Quality Control Analysis	Written Comprehension

E4	CORE	Store classified materials		
			Judgment and Decision Making	Information Ordering
			Management of Material Resources	Written Comprehension
E4	CORE	Update classified materials		
			Judgment and Decision Making	Information Ordering
			Management of Material Resources	Written Comprehension

SERVICE PROTOCOLS

Paygrade	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>
E4	CORE	Identify data link layer pro	otocols (layer 2)	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify network layer pro	tocols (layer 3)	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify presentation layer	protocols (layer 6)	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify session layer prote	ocols (layer 5)	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify transport layer pro	otocols (layer 4)	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering

TARGET DEVELOPMENT

Paygrade	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>
E5	CORE	Analyze composition of re		
			Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Analyze events for intellig	gence value	
			Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Analyze target network vu	ılnerabilities	
			Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E4	CORE	Develop target templates		
			Critical Thinking	Inductive Reasoning
			Reading Comprehension	Information Ordering
E4	CORE	Identify composition of re	mote target networks	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E5	CORE	Identify function of remote	e target networks	
		•	Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Reconstruct target network	ks	
		Ü	Complex Problem Solving	Inductive Reasoning
			Systems Evaluation	Information Ordering

TRANSFER CONTROL PROTOCOL/INTERNET PROTOCOL (TCP/IP) FUNDAMENTALS

<u>Paygrade</u>	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>
E4	CORE	Describe addressing scl	hemes	
			Complex Problem Solving	Information Ordering
			Mathematics	Inductive Reasoning

VULNERABILITY ANALYSIS

Paygrade	Task Type	<u>Task Statements</u> <u>Skills</u>	<u>Abilities</u>
E5	CORE	Analyze network patterns for Indications and Warnings (I&W)	
		Critical Thinking	Inductive Reasoning
		Systems Analysis	Information Ordering
E6	CORE	Coordinate target networks vulnerability scanning	
		Coordination	Information Ordering
		Management of Personnel Resources	Inductive Reasoning

Job Title Global Network Operations Director

Job Code 003103

<u>Job Family</u> <u>NOC</u> <u>Short Title (30 Characters)</u> <u>Short Title (10 Characters)</u>

Computer and Mathematical 1500-1081.00 GLOBAL NETWORK OPS DIRECTOR GNT OP DIR

Enlisted CTN M Not applicable, based upon the NEC assigned to the job (if any).

Job Description

Global Network Operations Director's provide senior-level management of the monitoring, collection, and reporting of information and the conduct of actions in direct support of computer network operations worldwide in support of Navy, National Security Agency, and Department of Defense national and theater level missions. Duties include Information Operations (IO) cell defensive planning, network target development, software analysis and development, access/attack operations, Indications and Warning (I&W), Attack Sensing and Warning (AS&W), Defensive Information Operations (DIO), and blue and red team functions.

DoD Relationship

O*NET Relationship

 Title and Group:
 Code and Area:
 Title and SOC Code:
 Name and Family Code:

 Analysis
 123200
 Network Systems and Data
 Computer and Mathematical

Communications Analysts

123 15-1081.00 15

ALL SOURCE RESEARCHING

Paygrade	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>
E5	CORE	Compile data obtained from	m multiple sources	
			Critical Thinking	Inductive Reasoning
			Systems Evaluation	Information Ordering
E4	CORE	Coordinate creation of initi	ial database searches (database queries)	
			Coordination	Information Ordering
			Management of Personnel Resources	Inductive Reasoning
E4	CORE	Gather target information		
			Critical Thinking	Inductive Reasoning
			Systems Evaluation	Information Ordering
E4	CORE	Perform data mining		
		•	Complex Problem Solving	Inductive Reasoning
			Critical Thinking	Information Ordering

COLLECTION PROCESSES

<u>Paygrade</u>	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>
E4	CORE	Identify CTN mission syst	ems	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify global collection	processes	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify Service Cryptolog	gic Element (SCE) functions	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering

COMMUNICATIONS PROTOCOLS

Paygrade	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>
E4	CORE	Identify Institute of Ele	ectrical and Electronics Engine	ers (IEEE) wired networking protocols
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify Institute of Ele	ectrical and Electronics Engine	ers (IEEE) wireless networking protocols
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering

E4	CORE	Identify routing protocols

Critical Thinking Inductive Reasoning
Operations Analysis Information Ordering

COMPUTER ARCHITECTURE

Paygrade	Task Type	Task Statements S	<u>Skills</u>	<u>Abilities</u>
E4	CORE	•	tion System (AIS) component functions Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify Input/Output (I/O) d	levice functions Critical Thinking	Inductive Reasoning
		(Operations Analysis	Information Ordering

COMPUTER NETWORK DEFENSE (CND) ANALYSIS

Paygrade	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>
E5	CORE	Analyze global threat activ	vities from data collected during network i	
			Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Analyze incidents for intel	lligence value	
			Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Analyze obfuscated source	e code	
			Programming	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Assess Computer Network	Defense (CND) postures for customers	
			Critical Thinking	Inductive Reasoning
			Systems Evaluation	Information Ordering
E5	CORE	Develop passive counterm	neasures for Computer Network Operations	s (CNO) threats
			Operation Monitoring	Information Ordering
			Operations Analysis	Inductive Reasoning
E4	CORE	Identify hacker tactics, tec	chniques and procedures using forensic tech	hniques
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E5	CORE	Perform penetration testin	g against remote systems	
			Complex Problem Solving	Information Ordering
			Operations Analysis	Inductive Reasoning
E5	CORE	Validate network intrusion	n incidents	
			Complex Problem Solving	Information Ordering
			Quality Control Analysis	Inductive Reasoning

COMPUTER NETWORK OPERATIONS

<u>Paygrade</u> E5	<u>Task Type</u> CORE	Task Statements Access remote systems	<u>Skills</u>	<u>Abilities</u>
		·	Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Analyze remote system er	nvironments Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Analyze remote targets for	r software pre-positioning Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E6	CORE	Assess technical impacts of	of tools and techniques on specific targets Critical Thinking	Inductive Reasoning
			Systems Evaluation	Information Ordering

E6	CORE	Collect global threat indic	ations posed by remote networks Critical Thinking	Inductive Reasoning
			Systems Evaluation	Information Ordering
E5	CORE	Collect target information		
			Critical Thinking	Inductive Reasoning
			Systems Evaluation	Information Ordering
E6	CORE	Disrupt remote network in	frastructures	
			Critical Thinking	Information Ordering
			Systems Analysis	Inductive Reasoning

FILE SYSTEM INTERNALS

Paygrade	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>
E4	CORE	Identify common file struc		
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify disk partitions		
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify file permissions		
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify file system forma	ıts	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify file system hierar	chies	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify file system imple	mentations	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify file system manage	gement	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify master boot recor	rds	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering

FORENSIC ANALYSIS

<u>Pavgrade</u> E5	<u>Task Type</u> CORE	<u>Task Statements</u> Analyze file system timel	Skills	<u>Abilities</u>
E3	CORE	Anaryze me system umer	Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Analyze hacker tactics, te	echniques, and procedures using forensic to Critical Thinking	echniques Inductive Reasoning
			Systems Analysis	Information Ordering
E6	CORE	Analyze network vulnera	bilities	
			Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Analyze un-obfuscated so	ource code in an interpreted language	
			Programming	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Collect volatile memory		
			Critical Thinking	Inductive Reasoning
			Systems Evaluation	Information Ordering

E5	CORE	Create hash filters		
LS	CORE	Create hash fitters	Judgment and Decision Making	Information Ordering
			Systems Evaluation	Inductive Reasoning
E5	CORE	Create system images		
			Operation and Control	Inductive Reasoning
			Systems Evaluation	Information Ordering
E5	CORE	Identify active connection		L. L. din D. m. min
			Critical Thinking	Inductive Reasoning
E5	CODE	T44'C-1'44	Operations Analysis	Information Ordering
E5	CORE	Identify hidden connection	ns Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E5	CORE	Identify hidden processes		y
		, F	Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E5	CORE	Perform binary analyses		
			Mathematics	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Perform forensic file syste		
			Complex Problem Solving	Information Ordering
			Systems Analysis	Inductive Reasoning
		INFORMATION (OPERATIONS (IO) PLANNING	
Paygrade	Task Type	Task Statements	Skills	Abilities
E6	CORE		work Operations (CNO) with Information	
			Coordination	Information Ordering
			Management of Personnel Resources	Inductive Reasoning
EC.	CODE	D1''		
E6	CORE	Develop mission procedur		Information Ordering
Eo	CORE	Develop mission procedur	Complex Problem Solving	Information Ordering
			Complex Problem Solving Critical Thinking	Information Ordering Inductive Reasoning
E6	CORE		Complex Problem Solving	•
			Complex Problem Solving Critical Thinking current real world threat information	Inductive Reasoning
		Draft scenarios to support	Complex Problem Solving Critical Thinking current real world threat information Complex Problem Solving	Inductive Reasoning Information Ordering
E6	CORE	Draft scenarios to support MISSIO	Complex Problem Solving Critical Thinking current real world threat information Complex Problem Solving Writing ON COORDINATION	Inductive Reasoning Information Ordering Inductive Reasoning
E6 <u>Pavgrade</u>	CORE Task Type	Draft scenarios to support MISSIO Task Statements	Complex Problem Solving Critical Thinking current real world threat information Complex Problem Solving Writing ON COORDINATION Skills	Inductive Reasoning Information Ordering
E6	CORE	Draft scenarios to support MISSIO Task Statements	Complex Problem Solving Critical Thinking current real world threat information Complex Problem Solving Writing ON COORDINATION	Inductive Reasoning Information Ordering Inductive Reasoning
E6 <u>Pavgrade</u>	CORE Task Type	Draft scenarios to support MISSIO Task Statements	Complex Problem Solving Critical Thinking current real world threat information Complex Problem Solving Writing ON COORDINATION Skills potential threats posed by target networks Coordination	Inductive Reasoning Information Ordering Inductive Reasoning Abilities Information Ordering
E6 <u>Pavgrade</u>	CORE Task Type	Draft scenarios to support MISSIO Task Statements	Complex Problem Solving Critical Thinking current real world threat information Complex Problem Solving Writing ON COORDINATION Skills potential threats posed by target networks Coordination Management of Personnel Resources	Inductive Reasoning Information Ordering Inductive Reasoning Abilities
E6 Paygrade E5	CORE Task Type CORE	Draft scenarios to support MISSIO Task Statements Coordinate collections of	Complex Problem Solving Critical Thinking current real world threat information Complex Problem Solving Writing ON COORDINATION Skills potential threats posed by target networks Coordination Management of Personnel Resources	Inductive Reasoning Information Ordering Inductive Reasoning Abilities Information Ordering
E6 Paygrade E5	CORE Task Type CORE	Draft scenarios to support MISSIO Task Statements Coordinate collections of	Complex Problem Solving Critical Thinking current real world threat information Complex Problem Solving Writing ON COORDINATION Skills potential threats posed by target networks Coordination Management of Personnel Resources	Inductive Reasoning Information Ordering Inductive Reasoning Abilities Information Ordering Inductive Reasoning
E6 Paygrade E5	CORE Task Type CORE	Draft scenarios to support MISSIO Task Statements Coordinate collections of	Complex Problem Solving Critical Thinking current real world threat information Complex Problem Solving Writing ON COORDINATION Skills potential threats posed by target networks Coordination Management of Personnel Resources Complex Problem Solving Coordination tions	Inductive Reasoning Information Ordering Inductive Reasoning Abilities Information Ordering Inductive Reasoning Information Ordering Information Ordering Inductive Reasoning
E6 Pavgrade E5 E6	CORE Task Type CORE CORE	MISSIO Task Statements Coordinate collections of Deconflict legal processes	Complex Problem Solving Critical Thinking current real world threat information Complex Problem Solving Writing ON COORDINATION Skills potential threats posed by target networks Coordination Management of Personnel Resources Complex Problem Solving Coordination tions Coordination	Inductive Reasoning Information Ordering Inductive Reasoning Abilities Information Ordering Inductive Reasoning Information Ordering Inductive Reasoning Inductive Reasoning
E6 Pavgrade E5 E6	CORE Task Type CORE CORE	MISSIO Task Statements Coordinate collections of Deconflict legal processes	Complex Problem Solving Critical Thinking current real world threat information Complex Problem Solving Writing ON COORDINATION Skills potential threats posed by target networks Coordination Management of Personnel Resources Complex Problem Solving Coordination tions	Inductive Reasoning Information Ordering Inductive Reasoning Abilities Information Ordering Inductive Reasoning Information Ordering Information Ordering Inductive Reasoning
E6 Pavgrade E5 E6	CORE Task Type CORE CORE	MISSIO Task Statements Coordinate collections of Deconflict legal processes Deconflict network operations	Complex Problem Solving Critical Thinking current real world threat information Complex Problem Solving Writing ON COORDINATION Skills potential threats posed by target networks Coordination Management of Personnel Resources Complex Problem Solving Coordination tions Coordination	Inductive Reasoning Information Ordering Inductive Reasoning Abilities Information Ordering Inductive Reasoning Information Ordering Inductive Reasoning Inductive Reasoning
E6 Pavgrade E5 E6 E5	CORE Task Type CORE CORE	MISSIO Task Statements Coordinate collections of Deconflict legal processes Deconflict network operations NETV	Complex Problem Solving Critical Thinking current real world threat information Complex Problem Solving Writing ON COORDINATION Skills potential threats posed by target networks Coordination Management of Personnel Resources Complex Problem Solving Coordination tions Coordination Critical Thinking WORK ANALYSIS	Inductive Reasoning Information Ordering Inductive Reasoning Abilities Information Ordering Inductive Reasoning Information Ordering Inductive Reasoning Inductive Reasoning Inductive Reasoning Information Ordering
E6 Pavgrade E5 E6	CORE Task Type CORE CORE	MISSIO Task Statements Coordinate collections of Deconflict legal processes Deconflict network operations NETV	Complex Problem Solving Critical Thinking current real world threat information Complex Problem Solving Writing ON COORDINATION Skills potential threats posed by target networks Coordination Management of Personnel Resources Complex Problem Solving Coordination tions Coordination Critical Thinking	Inductive Reasoning Information Ordering Inductive Reasoning Abilities Information Ordering Inductive Reasoning Information Ordering Inductive Reasoning Inductive Reasoning
Pavgrade E5 E6 E5	CORE Task Type CORE CORE CORE	MISSIO Task Statements Coordinate collections of Deconflict legal processes Deconflict network operations NETV	Complex Problem Solving Critical Thinking current real world threat information Complex Problem Solving Writing ON COORDINATION Skills potential threats posed by target networks Coordination Management of Personnel Resources Complex Problem Solving Coordination tions Coordination Critical Thinking WORK ANALYSIS Skills	Inductive Reasoning Information Ordering Inductive Reasoning Abilities Information Ordering Inductive Reasoning Information Ordering Inductive Reasoning Inductive Reasoning Inductive Reasoning Information Ordering
Pavgrade E5 E6 E5	CORE Task Type CORE CORE CORE	MISSIO Task Statements Coordinate collections of Deconflict legal processes Deconflict network operations NETV Task Statements Analyze malicious activities	Complex Problem Solving Critical Thinking current real world threat information Complex Problem Solving Writing ON COORDINATION Skills potential threats posed by target networks Coordination Management of Personnel Resources Complex Problem Solving Coordination tions Coordination Critical Thinking WORK ANALYSIS Skills ies in global network traffic Critical Thinking Systems Analysis	Inductive Reasoning Information Ordering Inductive Reasoning Abilities Information Ordering Inductive Reasoning Information Ordering Inductive Reasoning Inductive Reasoning Information Ordering Information Ordering
Pavgrade E5 E6 E5	CORE Task Type CORE CORE CORE	MISSIO Task Statements Coordinate collections of Deconflict legal processes Deconflict network operations NETV	Complex Problem Solving Critical Thinking current real world threat information Complex Problem Solving Writing ON COORDINATION Skills potential threats posed by target networks Coordination Management of Personnel Resources Complex Problem Solving Coordination tions Coordination Critical Thinking WORK ANALYSIS Skills ies in global network traffic Critical Thinking Systems Analysis s for traffic characteristics	Inductive Reasoning Information Ordering Inductive Reasoning Abilities Information Ordering Inductive Reasoning Information Ordering Inductive Reasoning Inductive Reasoning Information Ordering Information Ordering Information Ordering
Pavgrade E5 E6 E5 Pavgrade E5	CORE Task Type CORE CORE CORE Task Type CORE	MISSIO Task Statements Coordinate collections of Deconflict legal processes Deconflict network operations NETV Task Statements Analyze malicious activities	Complex Problem Solving Critical Thinking current real world threat information Complex Problem Solving Writing ON COORDINATION Skills potential threats posed by target networks Coordination Management of Personnel Resources Complex Problem Solving Coordination tions Coordination Critical Thinking WORK ANALYSIS Skills ies in global network traffic Critical Thinking Systems Analysis	Inductive Reasoning Information Ordering Inductive Reasoning Abilities Information Ordering Inductive Reasoning Information Ordering Inductive Reasoning Inductive Reasoning Inductive Reasoning Information Ordering Information Ordering

E4	CORE	Identify malicious activitie	es in global network traffic Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Perform network traffic an	alyses Critical Thinking	Information Ordering
			Operations Analysis	Inductive Reasoning
E4	CORE	Perform session recoveries	from Internet Protocol (IP) data streams Complex Problem Solving Operations Analysis	Information Ordering Inductive Reasoning

NETWORK SECURITY

<u>Pavgrade</u> E5	<u>Task Type</u> CORE	Task Statements Analyze Access Control 1	<u>Skills</u> Lists (ACL)	<u>Abilities</u>
23	CORE	7 mary 20 7 recess Condor 1	Complex Problem Solving	Mathematical Reasoning
			Systems Analysis	Inductive Reasoning
E5	CORE	Analyze device logs		
			Critical Thinking	Information Ordering
			Systems Analysis	Inductive Reasoning
E5	CORE	Harden network devices		
			Systems Analysis	Information Ordering
			Systems Evaluation	Inductive Reasoning
E4	CORE	Identify Access Control I	Lists (ACL)	
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E5	CORE	Identify Authentication A	Authorization Accounting (AAA) security in Critical Thinking	mplementations Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify encryption stand	ards	V
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E5	CORE	Identify Institute of Elect	rical and Electronics Engineers (IEEE) sec	eurity standards
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify network security	architecture components Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify Virtual Private N	*	,
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E5	CORE	Maintain global network	Intrusion Detection Systems (IDS) signatu	res
		Č	Management of Material Resources	Inductive Reasoning
			Quality Control Analysis	Information Ordering
		OPERATING SV	STEM (OS) FUNDAMENTAI S	1

OPERATING SYSTEM (OS) FUNDAMENTALS

<u>Pavgrade</u> E4	<u>Task Type</u> CORE	Task Statements Analyze Computer Proces	Skills ssing Unit (CPU) performance	<u>Abilities</u>
E.	CORE	rmaryze compater rroces	Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E4	CORE	Analyze disk managemen	t	
			Critical Thinking	Information Ordering
			Systems Analysis	Inductive Reasoning
E4	CORE	Analyze kernel functions		
			Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering

E4	CORE	Analyze kernel space mer	nories Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E4	CORE	Analyze memory allocation	·	ingermanien eraering
		, ,	Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E4	CORE	Analyze Operating System	n (OS) hardware interactions Critical Thinking	Inductive Reasoning
			Systems Analysis	Information Ordering
E4	CORE	Analyze thread manageme		
			Critical Thinking	Inductive Reasoning
F.4	CODE		Systems Analysis	Information Ordering
E4	CORE	Determine Operating Syst	Critical Thinking	Inductive Reasoning
			Systems Evaluation	Information Ordering
E4	CORE	Identify common system s	services Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify Operating System	n (OS) characteristics	, o
			Critical Thinking	Inductive Reasoning
E4	CORE	Map process life cycles	Operations Analysis	Information Ordering
124	CORE	Map process me cycles	Critical Thinking	Inductive Reasoning
			Programming	Information Ordering
		PRODU	CT DEVELOPMENT	
Paygrade	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>
E4	CORE	Provide inputs for Signal	Intelligence (SIGINT) reports Reading Comprehension	Information Ordering
			Writing	Written Expression
E6	CORE	Validate Computer Netwo	ork Operations (CNO) analysis products	Witten Expression
		· · · · · · · · · · · · · · · · · · ·	Critical Thinking	Information Ordering
			Quality Control Analysis	Inductive Reasoning
		PR	OGRAMMING	
D 1	m 1 m	TD 1 G4 4	ci iii	41.11
<u>Paygrade</u> E6	<u>Task Type</u> CORE	<u>Task Statements</u> Develop Computer Netwo	Skills ork Operations (CNO) tools	<u>Abilities</u>
			Programming	Inductive Reasoning
			Systems Analysis	Information Ordering
E5	CORE	Evaluate software tools for	or Computer Network Operations (CNO) Operations Analysis	Information Ordering
			Systems Evaluation	Inductive Reasoning
E5				
	CORE	Interpret assembly code		
	CORE	Interpret assembly code	Complex Problem Solving	Information Ordering
			Programming	Information Ordering Inductive Reasoning
E4	CORE	Interpret assembly code Interpret basic-level source	Programming	
E4			Programming se code	Inductive Reasoning
E4 E5			Programming se code Complex Problem Solving Programming	Inductive Reasoning Information Ordering
	CORE	Interpret basic-level source	Programming se code Complex Problem Solving Programming el source code	Inductive Reasoning Information Ordering Inductive Reasoning
	CORE	Interpret basic-level source	Programming se code Complex Problem Solving Programming el source code Complex Problem Solving	Inductive Reasoning Information Ordering Inductive Reasoning Information Ordering

Quality Control Analysis

Information Ordering

E4	CORE	Program basic level compiled language Critical Thinking	Information Ordering
		Programming	Inductive Reasoning
E5	CORE	Program intermediate level compiled language Critical Thinking	Information Ordering
		Programming	Inductive Reasoning
E4	CORE	Script basic level interpreted language Critical Thinking	Information Ordering
		Programming	Originality
E5	CORE	Script intermediate level interpreted language Critical Thinking	Information Ordering
		Programming	Originality

SENSITIVE COMPARTMENTED INFORMATION (SCI) PROTECTION

<u>Pavgrade</u> E4	<u>Task Type</u> CORE	<u>Task Statements</u> Control access to restricte	<u>Skills</u> d areas	<u>Abilities</u>
			Monitoring	Inductive Reasoning
			Persuasion	Information Ordering
E4	CORE	Destroy classified materia		
			Reading Comprehension	Inductive Reasoning
			Time Management	Information Ordering
E4	CORE	Document receipt of class	ified materials Management of Material Resources	Information Ordering
			Writing	Written Expression
E4	CORE	Implement Emergency Ac	ction Plan (EAP) Operation and Control	Inductive Reasoning
			Persuasion	Information Ordering
E4	CORE	Implement physical securi	ity measures Operation and Control	Inductive Reasoning
			Persuasion	Information Ordering
E4	CORE	Inventory classified mater	ials	
		·	Reading Comprehension	Inductive Reasoning
			Writing	Information Ordering
E4	CORE	Issue classified materials		
			Management of Material Resources	Oral Comprehension
			Quality Control Analysis	Information Ordering
E4	CORE	Maintain custody of class:	ified materials Management of Material Resources	Written Comprehension
			Quality Control Analysis	Information Ordering
E4	CORE	Maintain Sensitive Compa	artmented Information Facilities (SCIF) ac Operation Monitoring	cess control Deductive Reasoning
			Quality Control Analysis	Information Ordering
E4	CORE	Safeguard classified mater	rials	
			Judgment and Decision Making	Information Ordering
			Quality Control Analysis	Written Comprehension
E4	CORE	Store classified materials		
			Judgment and Decision Making	Information Ordering
			Management of Material Resources	Written Comprehension
E4	CORE	Update classified material	ls Judgment and Decision Making Management of Material Resources	Information Ordering Written Comprehension

SERVICE PROTOCOLS

<u>Paygrade</u> E4	<u>Task Type</u> CORE	<u>Task Statements</u> Identify application layer	<u>Skills</u> protocols (layer 7)	<u>Abilities</u>
			Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify data link layer pro	otocols (layer 2) Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify network layer pro	tocols (layer 3) Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify presentation layer	protocols (layer 6) Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify session layer prote	ocols (layer 5) Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
E4	CORE	Identify transport layer pro	otocols (layer 4) Critical Thinking	Inductive Reasoning
			Operations Analysis	Information Ordering
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TARGET DEVELOPMENT

<u>Paygrade</u>	Task Type	Task Statements	<u>Skills</u>	<u>Abilities</u>	
E5	CORE	Analyze composition of remote target networks			
			Critical Thinking	Inductive Reasoning	
			Systems Analysis	Information Ordering	
E5	CORE	Analyze events for intelligence value			
			Critical Thinking	Inductive Reasoning	
			Systems Analysis	Information Ordering	
E4	CORE	Analyze metadata			
			Critical Thinking	Inductive Reasoning	
			Systems Analysis	Information Ordering	
E5	CORE	Analyze target network v			
			Critical Thinking	Inductive Reasoning	
			Systems Analysis	Information Ordering	
E5	CORE	Assess target information systems security postures for potential vulnerabilities			
			Critical Thinking	Inductive Reasoning	
			Systems Evaluation	Information Ordering	
E4	CORE	Create dictionary terms			
			Critical Thinking	Inductive Reasoning	
			Judgment and Decision Making	Information Ordering	
E4	CORE	Develop target templates			
			Critical Thinking	Inductive Reasoning	
			Reading Comprehension	Information Ordering	
E4 CORE Identify composition of					
			Critical Thinking	Inductive Reasoning	
			Operations Analysis	Information Ordering	
E5	CORE	Identify functions of remote target networks			
			Critical Thinking	Inductive Reasoning	
			Operations Analysis	Information Ordering	
E4	CORE	Reconstruct target network			
			Complex Problem Solving	Inductive Reasoning	
			Systems Evaluation	Information Ordering	

TRANSFER CONTROL PROTOCOL/INTERNET PROTOCOL (TCP/IP) FUNDAMENTALS

<u>Paygrade</u> E4	<u>Task Type</u> CORE	<u>Task Statements</u> Analyze packet headers	<u>Skills</u>	<u>Abilities</u>			
		, . r	Critical Thinking	Inductive Reasoning			
			Systems Analysis	Information Ordering			
E4	CORE	Describe addressing schemes					
			Complex Problem Solving	Information Ordering			
			Mathematics	Inductive Reasoning			
VULNERABILITY ANALYSIS							
Paygrade E5	Task Type CORE	Task Statements Analyze network patterns	Skills for Indications and Warnings (I&W)	Abilities			
			Critical Thinking	Inductive Reasoning			
			Systems Analysis	Information Ordering			
E6	CORE	Coordinate vulnerability	scanning of target networks Coordination	Information Ordering			
			Management of Personnel Resources	Inductive Reasoning			
E4	CORE	Perform vulnerability asso	essments on target networks Critical Thinking	Information Ordering			
			Systems Evaluation	Inductive Reasoning			